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The Parenting Styles Self-Test: Reliability and construct validity.

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**THE PARENTING STYLES SELF-TEST:
RELIABILITY AND CONSTRUCT VALIDITY**

by

Catharine H. Lee

Hons. B.A., McMaster University, 1997

**A Thesis Submitted to the College of Graduate Studies and Research
through the Department of Psychology in Partial Fulfillment
of the Degree of Masters of Arts at the
University of Windsor, Windsor, Ontario, Canada**

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Abstract

As a result of research over the last decade, Gottman developed meta-emotion theory (Gottman, Katz, & Hooven, 1997). Meta-emotion refers to one's thoughts and feelings about emotion. The meta-emotion construct is intended to capture parents' fundamental attitude toward emotion in themselves and their children. In research to date, the meta-emotion philosophy of the parent has been determined through a lengthy, structured interview. Gottman (1997) has written a book for parents and included a brief self-report questionnaire derived from the structured interview. Although current research uses the structured interview, it would be beneficial if the self-test could be used in research rather than the lengthy structured interview. The current research evaluated the internal consistency, the test-retest reliability, and the construct validity of this new measure. Participants were also asked for their thoughts and feelings about the research and the new measure. Eight-nine mothers and eleven fathers completed the questionnaire once. A subset of the sample (71 mothers and 9 fathers) completed the questionnaires a second time (interval range 60 - 90 days). The internal consistency of the measure was good for three of the parenting styles, but was poor for the fourth parenting style. The test-retest reliability was statistically significant for all four parenting styles. The predominant parenting style changed from the first to the second administration for less than ten percent of participants. The construct validity was poor. Participants reported that the current study was interesting and informative, but indicated that the response format was too restrictive and that some items were difficult to answer. Unexpectedly, participants represented only two of the four parenting styles. Although limited by certain

considerations, this study provides some evidence for the reliability and limited validity of this new measure, and further refinement would likely add to improving the measure's psychometric properties.

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CHAPTER 1

INTRODUCTION

Over the last decade, Gottman and his colleagues have been conducting longitudinal research on parent-child relations and the development of emotion regulation abilities in children (Gottman, Katz, & Hooven, 1997). As a result of this research on over 100 families, Gottman developed a theory of meta-emotion. Meta-emotion refers to one's thoughts and feelings about emotion. The meta-emotion construct is intended to capture parents' fundamental attitude toward emotion in themselves and their children. Gottman contends that parental styles of emotion socialization depend on the meta-emotion philosophy of the parent. Evidence from preliminary studies indicates that children manifest different outcomes based on the parent's meta-emotion philosophy. In research to date, the meta-emotion philosophy of the parent has been determined through a lengthy structured interview. This structured interview has been shown to be a valid measure of the meta-emotion philosophy of the parent (Gottman et al, 1997).

Recently, Gottman (1997) has written a book for parents to use as a guide in enhancing their children's emotional functioning, and has derived a self-report questionnaire from the structured interview for parents to use in conjunction with the parenting guide. The Parenting Styles Self-Test (PSST) assesses parents' fundamental attitudes toward emotion, and is intended to assist parents in determining the predominant method they use to teach their children to recognize, express, and control emotion. The PSST is an economical method for establishing the meta-emotion philosophy of parents. Although Gottman and his colleagues' use the structured interview in their research, it

would be beneficial if the briefer self-test could be used for research purposes rather than the lengthy structured interview (Gottman, Katz, & Hooven, 1996; Gottman et al, 1997; Katz, Gottman, & Wilson, 1999). It is important to have access to a measure of meta-emotion that is relatively easy to administer and score. In addition, conducting research in meta-emotion theory would become significantly more accessible. However, the psychometric properties of this new instrument have not been established. The current research evaluated the inter-item consistency, the test-retest reliability, and the construct validity of the Parenting Styles Self-Test.

In the following sections, the theoretical foundations for meta-emotion theory, including relevant research on parenting and the socialization of emotion, will be reviewed. Meta-emotion theory, as well as current research using the theory, will be described prior to considering the hypotheses of the current study.

Theoretical Foundations of Meta-Emotion Theory

Prior to the development of his meta-emotion theory, Gottman investigated separately the role of emotion in marriage and the role of emotion in children's peer relationships (Gottman et al., 1996). Starting in 1986, the focus of Gottman's research changed to combined research in parent-child relations and the development of emotion regulation abilities in children. Thus, meta-emotion theory is a synthesis of two research traditions: parenting and socialization of emotion. Gottman indicates that his research was influenced substantially by the work of Ginott, in that Ginott combined the concepts of parenting and socialization of emotion (Gottman et al., 1996).

Ginott was a clinical psychologist and parent educator who wrote a popular

parenting guide in the mid-1960's (Ginott, 1965). Ginott was primarily concerned with the emotional education that parents provide their children through parent-child interactions, and he recommended that parents communicate with their children about the parent's and the child's emotions. In particular, Ginott stressed that "emotions are a part of our genetic heritage" (p.34). Thus, while we may not choose whether or not we experience emotion, we may choose how we interpret or experience emotions. Consequently, Ginott advocated that parents help children to know what their feelings are, and to express emotion appropriately. Most importantly, Ginott stressed that parents need to have an emotional connection with their child that is accepting of the child's emotional experiences. As well, parents need to intercede when the child is experiencing strong negative emotions. The work of Ginott anticipated the recent interest in the socialization of emotion and emotional intelligence.

Parenting and the Socialization of Emotion

Historically, conceptions of differences in parenting styles have been primarily concerned with behaviour between mother and infant, or with the discipline behaviour of the parent. Attachment is the most researched early emotional relationship, and refers to the type of love bond formed between parent and infant in the first year of life (Dix, 1991; Ainsworth, 1969). Attachment styles have been found to be stable both within individuals during their lifetime, and within families across generations (Main, Kaplan, & Cassidy, 1985). Failures in the development of secure attachment may result in attachment disorders, in which the infant or child shows disturbed social relatedness to adults (Minde & Benoit, 1991). However, attachment is not so much a parenting style as it is a

description of the quality of the relationship between parent and child.

A different conception of parenting styles was developed by Baumrind (1971, 1975). Baumrind's parenting styles differentiate discipline patterns of behaviour, and are associated with differential outcomes in child behaviour. The three parenting styles are: authoritarian, authoritative, permissive. A difficulty associated with this typology is that the majority of parents studied were found to fit within one dimension, the authoritative parenting style. In other words, the vast majority of parents studied by Baumrind both gave and enforced directives, explained and listened during parent-child interactions, encouraged children to be independent within limits, and interacted with their children in a warm and loving manner. Baumrind's theory has been extended by other researchers, most notably by Cowan and Cowan (1992). The Cowans conducted longitudinal research, using the adult attachment interview, that evaluated the changes in a couple's relationship when the couple has a child. Thus, the Cowans integrated Ainsworth's attachment theory and Baumrind's parenting styles, and evaluated familial relationships, which resulted in the Cowans' family systems model (Ainsworth, 1969; Baumrind, 1975; Cowan, & Cowan, 1992). The Cowans utilized knowledge gained from the research to direct advice to parents about early parenthood (Cowan & Cowan, 1992).

Research indicates that parenting behaviour is altered by certain mediators such as both major life and daily stressors, the amount of parenting experience a parent has, and therapeutic interventions (Patterson, 1983; Crnic & Greenberg, 1990; Mrazek, Mrazek, & Klennert, 1995). However, although parents may change some child-rearing behaviours as their children grow older, other aspects of parenting remain stable. Research indicates that

maternal beliefs about children's social behaviours change only slightly over time, if at all (Mills & Rubin, 1992). In addition, although a parent's behaviour in response to maladaptive behaviour in the child may change as the child grows older, the parent's beliefs with respect to maladaptive behaviour do not necessarily change (McNally, Eisenberg, & Harris, 1991). Stability in parenting has also been found in longitudinal research on the quality, or adequacy, of parenting (Mrazek et al., 1995). Specifically, parental degree of emotional warmth, degree of parental flexibility, parental knowledge of child development and basic care of children, and parental commitment to child care responsibilities were found to be temporally stable. Thus, it appears that certain core aspects of parenting are temporally stable. The temporal stability of parenting constructs and behaviours is of interest to the current research as the meta-emotion construct is hypothesized to be temporally stable.

Meta-emotion theory is primarily concerned with parental styles of emotion socialization. Thus, in order to evaluate meta-emotion theory, an understanding of the principles associated with emotion socialization is essential. As Ginott recognized, emotions are innate biological phenomena (Darwin, 1965). Babies as young as 10 weeks old respond differently to their mother's facial and vocal expressions of happiness, sadness, and anger, and will mirror expressions of joy and anger (Haviland & Lelwica, 1987). However, despite the evidence of early emotional reaction, feeling states are subject to regulation processes which help individuals to suppress, conceal, or cope with emotions (Dix, 1991). These regulation processes include what to feel and how to express feelings (Hochschild, 1979; Saarni, 1979). Children become capable of regulating their

emotions through direct instruction, contingency learning, imitation, identification with role models, and communication of expectancies (Saarni, 1993). As each of the aforementioned methods of regulating emotions involves interactions with other individuals, therefore, children learn to regulate their emotions through social interactions. Consequently, children are socialized with respect to the regulation of emotion. A review of the literature indicates that emotion socialization begins early in a child's life and occurs initially through the primary caregiver, (Dix, 1991). In addition, some commonalities have been found between familial and individual emotional expressiveness from infancy through adulthood (Halberstadt, 1991). Links have also been found between familial styles of exhibiting nonverbal and verbal emotional expressions both within the family and in the individuals' social skills and peer relations (Halberstadt, Cassidy, Stifter, & Parke 1995). Thus, the emotional climate of the family, and the emotion socialization of the child, has a significant influence on a child's emotional and social development.

Affective expressions are communicative as they help children to know what parents expect and how parents are likely to act (Dix, 1991). Consequently, ambiguity in affective expressions have been found to confuse children (Dix, 1991). Evidence indicates that inappropriate emotion socialization contributes to distorted or immature development of emotional functioning (Saarni, 1993). In other words, failure to acquire emotional competence skills in childhood may result in disorganized or maladaptive emotional functioning. Thus, it appears that the failure of emotion socialization in childhood may be associated with disorders of emotion regulation in both childhood and adulthood.

A number of researchers have found evidence for mediators of parental

socialization of emotion. Individual differences in parental socialization of emotion have been found to be mediated by family structure, presence of siblings, gender, temperament of the child, level of maternal education, and marital relationship (Derryberry & Rothbart, 1988; Saarni, 1993; Dibble & Cohen, 1974; Minuchin, 1974; Boukydis & Burgess, 1982). One author described the relationship between the mediators of emotion socialization as inextricably intertwined (Saarni, 1993). Temperament has been posited as influencing emotion socialization by helping to shape the kind of parenting the child elicits (Dibble & Cohen, 1974). For example, infants with difficult temperaments tend to elicit greater arousal and distress from caregivers than do infants who are not difficult (Boukydis & Burgess, 1982). Despite mediators in the emotion socialization process, a review of the literature by Dix (1991) indicates that, more than any other variable, parents' emotions reflect the quality of parent-child relationships, and these relationships are affectively reciprocal. In other words, parental affect has been found to be correlated with ineffective parenting, more so than cognitive or behavioural processes.

Gottman's Meta-Emotion Theory

As was discussed previously, meta-emotion theory addresses socialization of emotion through parenting practices. Meta-emotion theory differs from previous approaches to studying the parent / child interaction in that meta-emotion theory includes parents' understanding about emotional expressions in the child, and how this relates to the parents' understanding of his or her own emotions (Katz et al., 1999). The meta-emotion construct is comprised of three dimensions: the parents' awareness of their own emotions, the parents' awareness of their child's emotions, and finally, the parents'

responses to their child's emotions and the parents' reasoning about those responses (Gottman et al., 1997). Thus, the meta-emotion construct is intended to capture a parents' fundamental attitude or approach toward emotion in themselves and their children.

Gottman (1997) hypothesizes that parental thoughts and attitudes toward emotions result in particular styles of parenting. For example, parents who believe that strong negative emotions are damaging to young children are likely to try to limit the extent to which their children experience negative emotions. Conversely, parents who coach their children's emotions, and believe that children's emotions are an opportunity for learning, are more likely to teach the child appropriate strategies for coping with their emotions. Therefore, Gottman et al. (1996) contend that parental styles of emotion socialization depend on the meta-emotion philosophy of the parent. Children learn about the process of emotion from observing marital interactions, and from participating in parent / child interactions (Gottman et al., 1997).

Meta-Emotion Research

Meta-emotion theory was derived by Gottman and his colleagues from years of longitudinal research with over one hundred families (Gottman, 1997; Gottman et al., 1996). A majority of the families were recruited from a midwestern community (Gottman et al., 1996). The couples were screened, by telephone, to ensure the sample included couples with a wide range of marital satisfaction levels. Numerous hours were spent with each family, interviewing the parents, having the parents fill in questionnaires, and observing parent-child and child-peer interactions. The parents were interviewed to learn about their experiences with emotion, philosophies of emotional expression, feelings about

their children's emotions, and the history of the parent / child relationship. Both parental interviews and child play interactions were audiotaped, and interactions between parents and children were videotaped. Physiological data were collected from both parents and children in order to assess their autonomic response to emotion-inducing stressors. Finally, the children's teachers were asked to complete questionnaires regarding the children's social, emotional, and academic behaviours.

Preliminary evidence indicates that the parents' style of emotion socialization is related to differential outcome in middle childhood with respect to peer relations, academic performance and physical health (Gottman et al., 1996). This evidence indicates that children who have appropriate rules for expressing emotions and are able to cope adaptively with their emotions will tend to be better at soothing themselves, focusing their attention, relating socially to others, and performing well academically . They will also tend to have fewer infectious illnesses. The meta-emotion philosophy of the parent is hypothesized to influence parenting skills, which in turn influences the child's ability to regulate emotions (Katz et al., 1999).

The child's regulatory physiology is hypothesized to be influenced by positive parenting skills during emotional interactions. These positive parenting skills, evidenced in the emotion coaching parenting style, are postulated as influencing the child's regulatory physiology by allowing the autonomic nervous system to be less stressed, resulting in lower resting heart rates and secretion of lower levels of stress-related hormones (Gottman et al., 1997). In addition, the emotion coaching parenting style is hypothesized to change the child's regulatory physiology by increasing the child's ability to suppress

vagal tone and by increasing the child's basal vagal tone. Ability to suppress vagal tone becomes important when the child is required to focus attention, attend to relevant information, and respond in an organized fashion to stress (Gottman et al., 1996). The basal vagal tone has been shown to be related to increased sootheability and the ability to self-soothe, and increased ability to focus attention. Thus, variation in children's vagal tone is hypothesized to be due to an interaction between genetics and environment (Katz et al., 1999). The mediator between a child's emotional regulation abilities and the development of a child's cognitive competence is suggested to be the child's attentional processes (Gottman et al., 1997). Further evidence for a link between parental affect, parental behaviours, and differential child outcomes is provided by research indicating that marital hostility predicted teacher ratings of child externalizing behaviours three years later, and marital withdrawal predicted teacher ratings of child internalizing behaviours three years later (Katz & Gottman, 1993).

The meta-emotion philosophy of the parent, in addition to leading to differential outcome in children, has been shown to influence the marital relationship. One study demonstrated that the meta-emotion philosophies of parents are related to how the parents resolve marital disputes and to the parents' marital stability and satisfaction. Further, discrepancies in meta-emotion philosophy between couples were predictive of marital instability and divorce (Gottman, 1994). However, Katz and Gottman (1997), in a study that assessed several potential buffering factors for effects of marital conflict and dissolution on children, found that the parent's meta-emotion philosophy can buffer a child from the risks associated with marital conflict and divorce. The meta-emotion variables

were found to buffer risks such as the emotion regulation of the child, negative peer relations, negative affect with a peer, and the child's physical health. Thus, attention to their meta-emotion philosophy is one way in which parents may be able to protect their children from the risks associated with marital conflict and divorce. The identification of such buffers aids the development of intervention programs for parents undergoing marital conflict.

Despite these findings, the combined impact of both parents' meta-emotion philosophies on the child's regulatory physiology has not yet been addressed by Gottman's meta-emotion theory (Cowan, 1996). The buffering and vulnerability effects on the child of the meta-emotion philosophy of the two parents, when parental meta-emotion philosophies differ, have not been considered, such as whether the risk of a particular style of parenting is buffered by a different style exhibited by the other parent.

As was discussed previously, a number of mediators have been shown to influence the emotion socialization process. These mediators may also influence the meta-emotion parenting styles. Other important factors to be investigated include the effect of possible mediating variables on the meta-emotion philosophy of the parent, such as the gender of the parent or child, the age of the child, or the temperament of the parent (Gottman et al., 1996). Preliminary evidence suggests that the meta-emotion parenting style of the parent is not associated with measures of the temperament of the child, but the research was restricted to two-parent families, and was not racially or ethnically diverse. Further, a more recent publication suggests that meta-emotion may in part be based on the temperament of the child (Gottman et al., 1997). Although the gender of the parent or

child has not yet been investigated as a possible mediating variable on the meta-emotion philosophy of the parent, gender differences in how marital behaviour spills over into parent / child relationships has been investigated. Research by Gottman and his colleagues indicated that fathers tend to use negative power-assertive strategies with their children in response to having a wife that is negative, contemptuous and lacking in respect, whereas mothers tend to reject their children when husbands withdraw from marital interactions (Katz & Gottman, 1996). Finally, the only social class variable (e.g. income, occupational status, education) that was found to be related to meta-emotion variables was parental education (Gottman et al., 1997). Specifically, higher levels of education for both the father and mother were associated with an increased tendency to use an emotion coaching strategy.

The meta-emotion construct has not yet been investigated in single-parent and blended families, or in racially or culturally diverse samples. As well, the sample used in the preliminary study was too small to include gender as a moderating variable for structural equation modelling (Gottman et al., 1996). However, a replication study is currently under way with an additional 65 families and that study will allow for testing of gender differences for both parents and children (Katz et al., 1996). In addition, a parent training intervention in emotion-coaching is currently being pilot tested (Gottman et al., 1996). Therefore, despite significant shortcomings in the knowledge of particular mediators associated with meta-emotion theory, much research is underway to further elucidate the processes associated with the meta-emotion construct.

Based primarily on the structured meta-emotion interview with parents, Gottman

(1997) developed a Parenting Styles Self-Test (PSST) for parents to use in conjunction with his parenting guide. Although the PSST has not been psychometrically evaluated, the structured meta-emotion interview from which it was derived has been validated by assessing the correlation between the parenting style predicted by the structured meta-emotion interview and observations and physiological measures taken during a parent-child interaction (Gottman et al., 1997). Researchers other than Gottman have also found evidence for the parenting styles distinction. Eisenberg and Fabes (unpublished data, cited in Eisenberg, 1996) found, when assessing self-reports of how parents would respond to their children's negative emotions, that the responses formed groupings consistent with the differentiation between the dismissing and emotion-coaching parenting styles as was demonstrated through a factor analysis of parents' responses.

Gottman's Parenting Styles

Gottman's meta-emotion theory delineates four different parenting styles with respect to the parent's fundamental attitude toward emotion: dismissing, disapproving, laissez-faire, emotion-coaching (1997). Each parenting style is distinct, yet has certain elements in common with some of the other styles. In addition, Gottman (1997) indicates that each parenting style will have differential effects on children.

Although parents who dismiss and disapprove of emotion are similar in that both believe that emotional expression should be minimized, the dismissing parent differs from the disapproving parent in that the dismissing parent tends to trivialize or discount the child's expression of emotion. Such parents may tend to be indifferent to the expression of emotion in their children. For example, a dismissing parent may respond to a child's

temper tantrum by cajoling the child from the child's bad mood through directing the child's attention elsewhere. In contrast, the disapproving parent tends to judge and criticize the child's expression of emotion and may respond to a child's temper tantrum by spanking the child or sending the child to the child's room. Thus, neither the dismissing nor the disapproving parent would respond to a child's display of emotion by validating the child's feelings. Gottman (1997) suggests that the effects on child development of both dismissing and disapproving parenting styles are the same. The children learn that their feelings are not valid, and they may have difficulty in regulating their own emotions.

In contrast with the dismissing or disapproving parenting styles, the laissez-faire and emotion coaching parents permit or even encourage expressions of emotion in their children. However, the laissez-faire parent and the emotion coaching parent differ in that the laissez-faire parent does not offer any guidance to the child in terms of how to handle the child's emotions, and does not teach the child how to problem solve with respect to the child's emotional states. For example, a laissez-faire parent may respond to a child's temper tantrum by letting the child blow off steam and then comforting the child afterward. It is suggested that the effects of this style of parenting on children is that the children do not learn to regulate their emotions and consequently will have trouble both in focusing attention and in peer relationships.

In contrast, the emotion coaching parent is both aware of and values emotions. This parent will listen empathically and validate the child's feelings, recognizing that emotional experiences may be an opportunity for intimacy and teaching. However, the expression of emotion is not without limits, and the parent needs to set limits for the child

while assisting the child to problem solve. For example, an emotion coaching parent may respond to a child's temper tantrum by first helping the child to identify the emotion the child is experiencing. Then the parent may make sure that the child understands that certain behaviours are inappropriate, while guiding the child into thinking of more appropriate ways to handle negative feelings. It is suggested that the effects of this style of parenting on children are that the children learn to regulate their emotions, trust their feelings, and problem-solve effectively. Consequently, the child has high self-esteem, is able to learn and get along with others.

Rationale and Hypotheses of Present Study

Abundant research has demonstrated the association between a child's early emotional experiences and the child's emotional functioning later in life (Dix, 1991; Robins, 1978; Olweus, 1979; Harrington, Fudge, Rutter, & Pickles, 1990). Considering the consequences associated with inappropriate parenting and emotion socialization, an easily administered measure designed to identify maladaptive socialization of emotion could be of value. The PSST is intended to identify parents with difficulties in emotional interactions so that the parents can improve their efforts in the emotion socialization of their children. However, prior to usage of this new measure in research and clinical settings, the psychometric properties of the measure need to be established. A reliable and valid form of the PSST would facilitate future research in meta-emotion. The purpose of this study is to evaluate the current psychometric properties of the Parenting Styles Self-Test. Thus, the internal consistency, test-retest reliability, and construct validity will be addressed.

Hypothesis 1: Internal Consistency

As the parenting styles are multi-dimensional constructs, it was expected that the participants would be biased toward favouring a particular parenting style but not biased toward particular items that comprise the parenting style. Thus, it was hypothesized that there would be a significant correlation between items pertaining to each of the four parenting styles; disapproving, dismissing, emotion coaching, and laissez-faire. As well, it was expected that there would not be a significant correlation between items pertaining to different parenting styles. Consistency of responding to all items in the PSST was evaluated using inter-item correlations.

Hypothesis 2: Test-Retest Reliability

Meta-emotion theory, as well as parenting and emotion socialization research, has indicated that the predominant parenting style should be temporally stable. The present study evaluated the temporal stability of the instrument by administering the PSST to the same parents on two separate occasions two to three months apart. It was expected that there would be a significant correlation between the predominant parenting style on the two administrations of the instrument.

Hypothesis 3: Construct Validity

Construct validity is recognized as a fundamental concept in the evaluation of measures of psychological functioning (Anastasi & Urbina, 1997). If the test items do not measure the hypothesized underlying constructs, then the instrument does not measure what it purports to measure. Consequently, the present study evaluated the construct validity of the Parenting Styles Self-Test. As the PSST has been adapted from the

structured meta-emotion interview that was used in previous research, and the structured interview has been found to be a valid reflection of the parent's meta-emotion philosophy, it was hypothesized that the PSST would be found to be psychometrically valid as well. It was expected that a confirmatory factor analysis of the PSST items would confirm the presence of four factors, reflecting the four parenting styles.

Qualitative Analysis

Given that the PSST is intended to be used by parents, in conjunction with the parenting guide, to determine the parents' predominate parenting style, knowledge of the participant's thoughts and feelings about the PSST would be of value. This knowledge would add to the general fund of information about the PSST and would address the question of whether the parents are at ease in using the PSST. Consequently, the participants were asked for their thoughts and feelings about participating in the current research and the PSST, following participation in the study, .

CHAPTER II

METHOD

Participants

The participants for the current study were parents with a three to six year old child, and were recruited from three separate samples. The majority of the parents were recruited from the Drop-in Centre associated with the Early Childhood Education Program at St. Clair College of Applied Arts and Technology. Additional participants were recruited from undergraduate classes in psychology at the University of Windsor. Student parents participating in the study were offered extra course credit in exchange for their participation. Finally, participants were recruited during a parent-child activity day at St. Clair College of Applied Arts and Technology. Although Gottman et al's (1996) initial research was restricted to families with a child between four and five years of age, the parenting guide, and with it the PSST, is addressed toward a broader age range. Thus, the target age range was expanded to include three to six year olds as this age range is more inclusive of children in early childhood. Participants were not restricted to parents with just one child within the target age range. Thus, parents may have had one or more children between the ages of three and six years. Adoptive parents and step-parents were included.

Eighty-nine mothers (M age = 32.73, SD = 4.08) and eleven fathers (M age = 34.91, SD = 3.86) participated in the current research. Seven couples participated; the others were unrelated. Of the initial 100 participants, 80 participants agreed to complete the measures a second time. Seventy-one mothers (M age = 33.18, SD = 4.14) and nine

fathers (\underline{M} age = 34.89, \underline{SD} = 4.05) participated in the follow-up survey. Six couples participated; the others were unrelated. See Table 1 for a summary of the demographic characteristics of the participants from both administrations of the PSST. The demographic characteristics remained similar for participants who participated in both administrations of the PSST and participants who participated only in the first administration. Socioeconomic status was measured according to Blishen, Carroll, and Moore's (1987) scale, and appears in Table 1.

Awareness of parenting issues was evaluated based on the participant's reporting of the number of parenting classes taken (first administration: \underline{M} = 1.22, \underline{SD} = 2.29, range = 0 - 18; second administration: \underline{M} = 1.26, \underline{SD} = 2.40, range = 0 - 18) and parenting books read (first administration: \underline{M} = 7.16, \underline{SD} = 30.45, range = 0 - 300; second administration: \underline{M} = 9.06, \underline{SD} = 33.88, range = 0 - 300). Frequency analyses of the number of parenting classes taken and parenting books read were performed separately. Each category was divided into low, moderate, and high cases. Participants were rated as low, moderate, or high in awareness of parenting issues based on the frequency analyses. In cases where the classification into categories was not consistent between the two categories, the classification in the highest category took precedence. The categories were not consistent in forty-eight cases.

Measures

Background Information Form. Information requested included parental age, gender, ethnicity, education, income, marital status, and family composition (see Appendix A). The form also included a section for parents to list all parenting courses taken and

Table 1

Summary of Demographic Characteristics of the Sample

	First Administration	Second Administration
	<u>N</u> = 100	<u>N</u> = 80
Variable	<u>n</u> (percent of total)	<u>n</u> (percent of total)
Parent Gender		
Male	11 (11)	9 (11)
Female	89 (89)	71 (89)
Marital Status		
Married	95 (95)	77 (96)
Separated / Divorced	4 (4)	2 (3)
Never Married	1 (1)	1 (1)
Ethnicity		
Caucasian	94 (94)	75 (94)
Black	2 (2)	2 (2)
Asian / Pacific	5 (5)	3 (4)
Relationship to child		
Biological parent	98 (98)	78 (97)
Adoptive parent	2 (2)	2 (3)
Awareness of parenting issues		
Low	51 (51)	38 (47)
Moderate	30 (30)	27 (34)
High	19 (19)	15 (19)

(table continues)

Table 1 (continued)

Summary of Demographic Characteristics of the Sample

	First Administration	Second Administration
Variable	<u>n</u> (percent of total)	<u>n</u> (percent of total)
Family Income ^a		
Less than \$20,000	6 (6)	5 (6)
\$20,001 to \$40,000	11 (11)	11 (14)
\$40,001 to \$60,000	22 (22)	17 (21)
\$60,001 to \$99,999	42 (42)	32 (40)
\$100,000 or more	9 (9)	8 (10)
Education		
8th grade to 11th grade	2 (2)	1 (1)
High school / GED	12 (12)	10 (12)
Trade or technical school	6 (6)	3 (4)
Some college or university	13 (13)	12 (15)
College or university graduate	55 (55)	43 (54)
Graduate or Professional school	12 (12)	11 (14)

Note. ^aTen participants did not respond for the first administration and seven did not respond for the second administration.

(table continues)

Table 1 (continued)

Summary of Demographic Characteristics of the Sample

	First Administration	Second Administration
Variable	<u>n</u> (percent of total)	<u>n</u> (percent of total)
Socio-Economic Status ^b		
over 69.99 ^c	7 (7)	6 (7)
60 - 69.99 ^d	18 (18)	12 (15)
50 - 59.99 ^e	28 (28)	24 (30)
40 - 49.99 ^f	23 (23)	21 (26)
30 - 39.99 ^g	20 (20)	15 (19)
under 30.00 ^h	2 (2)	1 (1)

Note. ^b Two participants did not respond for the first administration, one participant did not respond for the second administration. ^cIncludes physicians, lawyers, professors, engineers, judges, dentists, and senior officials. ^dIncludes architects, teachers, social workers, psychologists, scientists, and counsellors. ^eIncludes managers, librarians, ministers of religion, and occupational therapists. ^fIncludes private investigators, sales occupations, adjusters, clerks, and mail carriers. ^gIncludes mechanics, truck drivers, and specialized labourers. ^hIncludes cashiers, general labourers, farmers, tailors, and food preparation occupations.

parenting books read.

Parenting Styles Self-Test (PSST; Gottman, 1997). This self-report questionnaire consists of 81 statements rated by the respondent as true or false. Each statement represents one of the four parenting styles. True responses pertaining to each style are summed and divided by the total number of items for that style (Gottman, 1997). The highest parenting style score reflects the predominant parenting style.

Ten items were added to the PSST to assess the participants' tendency to respond in a socially desirable manner. The items were selected from the Marlowe-Crowne Social Desirability Scale (Reynolds, 1982). Each item was chosen for inclusion on the basis of two criteria. First, the items were evaluated on the basis of how strongly the item correlated to the total scale. The minimum item to total scale correlation was .34, the maximum was .49. Second, as the PSST is composed of items that question the participant's thoughts and feelings about emotions, social desirability items were chosen for inclusion on the basis of emotional content, to facilitate content consistency with the other items.

Participant Exit Questionnaire. This form asked participants to relate thoughts and feelings about both the research in general and the PSST in particular (see Appendix B). The form also asked participants that were interested in a copy of the current study's results to record their name and phone number.

Procedure

Participants recruited at the Early Childhood Education drop-in centre completed the questionnaires while at the drop-in centre. Participants recruited from undergraduate

classes at the University of Windsor completed the questionnaires privately in a suitable room at the university. Participants recruited through the parent-child activity day were contacted by phone by the researcher and the researcher administered the questionnaires in the participant's home at a previously agreed upon time. First, each participant signed a consent form (see Appendix C), and was given an information form. The information form included the study's purpose, what the participant was asked to do, the approximate length of time to complete the questionnaires, and the participant's right to withdraw at any time. Participants were informed that the information they provided would be kept confidential, and that they could call the researcher to have questions answered. The participants were given the name and phone number of the researcher, and of the Departmental Ethics Committee Chair, to contact with any questions or concerns they might have about the study. Participants were then asked to complete the Background Information Form. Next, the parents were asked to complete the Parenting Styles Self-Test. Following completion of the questionnaires, participants were asked whether they consented to being called in two to three months to complete a follow-up questionnaire. For participants who agreed, their names, identification numbers, and phone numbers were noted for cross-referencing of the data.

Two to three months after initial completion of the questionnaires, willing participants were called by the researcher, and an appointment was arranged so that the participants could complete the Parenting Styles Self-Test a second time. Prior to the second administration, participants were asked to complete an information form that included possible intervening variables, such as change in family composition and

parenting knowledge obtained since the initial administration of the PSST (see Appendix D). In order to preserve confidentiality, participants were identified by number on all measures. However, to allow for comparison of participant's responses on the first and second administrations of the PSST, a master list of participants' names and identification numbers was compiled. Only persons administering the measures had access to the master list, and the master list remained in the possession of the researcher.

After participants concluded their participation in the study, they received copies of their responses to the initial PSST and of the debriefing form (see Appendix E) The debriefing form described the four parenting styles, explained how to score the PSST, and informed participants recruited from the drop-in centre that two copies of a book pertaining to the PSST would be available at the Early Childhood Education Drop-in Centre. Participants recruited from other sources were given information so that the participants could order the book from a library or book store.

CHAPTER III

RESULTS

The results of the current study will be presented in five sections. The first three sections will address the planned hypotheses. The fourth section will present the participants' thoughts and feelings about the PSST and participating in the current study. Finally, unexpected results not considered in the hypotheses will be presented in the last section. Statistical analyses were conducted using SPSS for Windows (Version 6.0) and, in the case of the confirmatory factor analysis, LISREL for Windows (Version 8.0).

Preliminary Analyses

Prior to the statistical analyses of hypotheses, the parenting style scores were calculated for each participant and the correlations between the parenting style scores and the social desirability response score were evaluated in order to determine whether a particular parenting style was correlated with a tendency to respond in a socially desirable manner. Each participant received a score for each parenting style, as was described previously. To determine the social desirability response score, responses to items pertaining to socially desirable responding were summed and divided by the total number of social desirability items (Reynolds, 1982). Thus, each participant received a score for tendency to respond in a socially desirable manner. Parenting style scores were then correlated with social desirability scores using the Pearson correlation coefficient. Correlations between the participants' parenting style scores and social desirability score were evaluated for the first and second administrations of the PSST. For the first administration of the PSST, all correlations were non-significant ($p > .05$) (see Table 2).

Table 2

Correlation of Parenting Style and Social Desirability

Parenting Style	First Administration	Second Administration
	<u>N</u> = 100	<u>N</u> = 80
Disapproving	-.19	.35**
Dismissing	.15	.14
Emotion Coaching	.06	.23*
Laissez Faire	-.12	.12

* $p < .05$ ** $p < .01$

However, for the second administration of the PSST, a socially desirable response tendency was correlated with responses to both the Disapproving and the Emotion Coaching parenting scales ($p < .05$). Thus, the participants' responses may have been tempered to be more socially desirable in the second administration.

Hypothesis 1: Internal Consistency

The internal consistency of the data from each administration was evaluated separately for each of the four parenting styles. As the responses to items were dichotomous, analyses of internal consistency were performed using coefficient alpha (Cronbach). In addition, the correlations between items pertaining to different parenting styles were evaluated, using Spearman correlation coefficient. Cases with missing data were excluded.

The internal consistency of the Disapproving parenting scale, for the first administration of the PSST, was good (see Table 3). However, one item from this scale had zero variance, with no participants endorsing this item ('When my child gets angry, I think it's time for a spanking'). The inter-item consistency of the Disapproving parenting scale was slightly higher for the second administration, with the same item having zero variance.

The internal consistency of the Dismissing parenting style scale, for the first administration of the PSST, was good (see Table 3). For the second administration of the PSST, the internal consistency of the Dismissing parenting style scale was slightly higher than for the first administration.

The internal consistency of the Laissez-Faire parenting style scale, for the first

Table 3

Intra-scale Correlations

	First Administration	Second Administration
	<u>N</u> = 100	<u>N</u> = 80
Parenting Style	α (<u>n</u>)	α (<u>n</u>)
Disapproving	.81 (87)	.87 (72)
Dismissing	.76 (87)	.83 (74)
Laissez-Faire	.33 (94)	.54 (74)
Emotion Coaching	.62 (86)	.59 (73)

administration of the PSST, was poor (see Table 3). One item from the Laissez-Faire scale had zero variance, with all participants endorsing this item ('When my child is sad, I try to let him know that I love him no matter what'). The inter-item consistency of this scale was higher for the second administration, such that the internal consistency may be described as moderate, with the same item endorsed by all participants.

The internal consistency of the Emotion Coaching parenting style scale, for the first administration of the PSST was moderate (see Table 3). However, two items from this scale had zero variance, with all participants endorsing those items ('When my child is sad, I try to help the child explore what is making him sad' and 'When my child is sad, I show my child that I understand'). Deleting one item from this scale would increase the inter-item correlation slightly ($\alpha = .68$) ('When my child is mad, I just find out what is making her mad'). The inter-item consistency of the Emotion Coaching scale was slightly lower for the second administration. However, there were four items with zero variance. The four items with zero variance include the two items with zero variance from the first administration plus two items that were also endorsed by all participants ('Anger is an emotion worth exploring' and 'Children have a right to feel angry').

Inter-item correlations between items that pertain to different parenting styles, for the first administration of the PSST, were also evaluated for consistency in responding. The two highest correlations are as follows. One item from the Dismissing parenting scale ('I'm not really trying to teach my child anything in particular about sadness') was significantly correlated with one item from the Laissez-Faire parenting style scale ('I'm not really trying to teach my child anything in particular about anger') ($r_s = .65$, $p < .001$).

The other two items of note, with a significant correlation, were one item from the Disapproving parenting style scale ('I don't think it is right for a child to show anger') and one item from the Dismissing parenting style scale ('If you ignore a child's sadness it tends to go away') ($r_s = .57, p < .001$). Out of 2,389 inter-item correlations, there were 21 correlations with $p < .001$ (range $r_s = .35 - .50$), and 52 correlations with $p < .01$ (range $r_s = .26 - .34$).

Hypothesis 2: Test-Retest Reliability

The temporal stability of parenting styles and the PSST was evaluated. First, participant's parenting style scores, from both the first and second administration of the PSST, were compared in order to determine whether participants' pattern of responding changed over time. Pearson product-moment correlations were used to determine the correlations between parenting scores obtained by the same person on two administrations of the PSST (see Table 4). The correlations between the Dismissing responses and the Disapproving responses were fairly high and statistically significant (Dismissing $r = .87$, Disapproving $r = .86, p < .001$). The correlation between the Laissez-Faire responses was somewhat lower, but still significant ($r = .62, p < .001$). However, the correlation between the responses to the Emotion Coaching items, although significant ($r = .43, p < .001$), was significantly lower than the correlations between the other parenting styles. The difference between the Emotion Coaching correlation and the three other correlation coefficients is significant at $p < .05$ (Disapproving $t = 5.73, df = 96$; Dismissing $t = 5.85, df = 96$; Laissez-Faire $t = 2.66, df = 96$).

Table 4

Correlation Matrix of Parenting Style Scores from Two Administrations of the PSST

Parenting								
Styles	DA	DM	EC	LF	PDA	PDM	PEC	PLF
DA	1.00	.61***	.01	.20	.86***	.62***	-.05	.33**
DM		1.00	-.03	.21	.56***	.87***	-.07	.29*
EC			1.00	-.03	.03	-.02	.43***	.03
LF				1.00	.02	.16	.05	.62***
PDA					1.00	.60***	.00	.21
PDM						1.00	-.04	.23*
PEC							1.00	-.10
PLF								1.00

Note. DA = Disapproving, DM = Dismissing, EC = Emotion Coaching, LF = Laissez-

Faire, PDA = Second Administration Disapproving, PDM = Second Administration

Dismissing, PEC = Second Administration Emotion Coaching, PLF = Second

Administration Laissez-Faire, * $p < .05$ ** $p < .01$ *** $p < .001$

In order to evaluate further the correlation between the responses to the two administrations of the PSST, a Wilcoxon Matched-Pairs Signed-Ranks Test was performed on the Emotion Coaching scores. The Wilcoxon Matched-Pairs Signed-Ranks Test looks at the number of participants that change responses over time and the amount of change in responding. The results indicate that participants had a greater tendency to endorse the Emotion Coaching items during the second administration of the PSST than during the first administration ($z = -2.33$, $p = .02$).

Given that the PSST is intended to determine the parents' predominant parenting style, a comparison was made between each participant's predominant parenting style on both administrations of the PSST. Of the 80 participants that completed the PSST twice, the predominant parenting style changed for 7 participants. Of the 7 participants for whom the predominant parenting style changed, 4 changed from an Emotion Coaching parenting style to a Laissez Faire parenting style, and 3 changed from a Laissez Faire parenting style to an Emotion Coaching parenting style.

Hypothesis 3: Construct Validity

Construct validity refers to the extent to which an instrument may be said to measure a theoretical construct (Anastasi & Urbina, 1997). As the PSST is intended to discriminate among the four parenting styles, each parenting style may be considered a construct. Thus, this analysis is intended to determine whether the four parenting style constructs are adequately represented by the PSST. Confirmatory factor analysis was employed as there were a priori hypotheses regarding the factors and their composition that should be represented (Floyd & Widaman, 1995). As responses to the PSST are

dichotomous, sums of similar items were computed to create parcels (Kishton & Widaman, 1994; Floyd & Widaman, 1995). Each parcel consisted of three or four items and the items in each parcel represented just one parenting style. The items were assigned to the parcels randomly using a random number table (Noether, 1971). Only the data from the initial administration were evaluated. As four items from the first administration of the PSST were shown to have zero variance, these items were not included in the confirmatory factor analysis.

To determine how well the data fit the model, a variety of fit indices are available (Kelloway, 1998). The preferred indices include: Root Mean Square Error of Approximation (RMSEA), Expected Cross Validation Index (ECVI), Comparative Fit Index (CFI), and the Non-Normed Fit Index (NNFI) (MacCallum, 1997). RMSEA is a test of the absolute fit of the data to the model, with smaller values indicating a better fit. In other words, RMSEA evaluates how close the observed data are to a perfect fit. Kelloway (1998) suggested that values of between 0.10 to 0.08 indicate a poor fit, values between 0.07 and 0.06 indicate a mediocre fit, and values below 0.05 indicate a good fit; whereas Joreskog and Sorbom (1993) suggest that the RMSEA value should be below 0.05. ECVI, CFI, and NNFI are tests of the comparative fit of the data to the model. In other words, these measures evaluate the improvement in the observed data over the null hypothesis. For the ECVI, smaller values indicate a model with better fit (Kelloway, 1998). For the CFI and the NNFI, a good fit is indicated by values that exceed 0.90.

The confirmatory factor analysis, using the method of Maximum Likelihood estimation and a correlation matrix, indicated that the fit of the model was poor, χ^2 (269, n

= 100) = 360.83, $p < .001$. When considering the absolute fit of the data, or how closely the model fits the data, the index of absolute fit suggests a mediocre fit (RMSEA = 0.059). When considering the comparative fit of the data, or the amount of improvement over the null model, the indices suggest a poor fit of the model (ECVI = 4.78, CFI = 0.82, NNFI = 0.79).

Qualitative Analysis

Following completion of participation in the study, participants were asked to relate their spontaneous thoughts and feelings to an open-ended question about the questionnaires and the research in general (see Appendix B). Fifty-six (56%) participants chose to share their thoughts and / or feelings. The participants' responses will first be described in terms of the participants' thoughts and feelings about the research in general, and then the participants' thoughts and feelings specifically about the PSST will be discussed. Areas of concern mentioned by more than 10% of the 56 respondents were included in this review. Responses were evaluated independently by two raters, and perfect agreement was attained in six out of seven categories (see Table 5). For the seventh category, regarding the answer format, the two ratings were within four percent of the total number of respondents. In other words, one rater identified 13 respondents to that category whereas the other rater identified 15 respondents to that category. The discrepancy was resolved by discussion between raters. Table 6 includes a selection of participants' responses that are illustrative of the general areas of concern.

As shown in Table 5, 13% of the respondents indicated that they thought that the research itself was interesting or were interested in the outcome of the research. Whereas

11% of the respondents indicated that this particular research study was educational or informative. Of the participants who responded to this question, 14% indicated that this particular study increased their thinking about, or understanding of, the emotional connection between parents and children. It appears that participating in this research 'sensitized' these parents to issues regarding how parents think and feel about emotions in themselves and their children. Finally, 19% of the respondents indicated that they are concerned about their parenting of emotion skills. These parents suggested either that they were concerned with the quality of their parenting skills or felt their parenting skills to be inadequate for teaching their children to successfully manage their emotions. The tenor and thoughtfulness of the respondent's comments may best be illustrated by the following paragraph, written by one of the respondents.

"A few days ago, 2 kids shot 16 of their classmates in Colorado. Since, I have heard several experts conclude that those boys had uncontrollable anger built up in them. When I filled in the questionnaire today, I really paused and meditated for a long time on the statement 'anger is a dangerous emotion'. How do you know that you are doing good, satisfying anger management with your children? I myself sometimes get overwhelmed by anger. How do I know that I'm role modelling the right tools or methods to deal successfully with anger? The implications are enormous and can be lasting."

With respect to comments about the PSST in particular, respondents commented on particular items and the response format (see Table 6). Twenty-seven percent of the respondents indicated that there were problems with either certain items or with all items. Items were described as too general, vague, or ambiguous. Some items were described as

Table 5

Response Rates to Participant Exit Questionnaire

Comments	frequency ($n = 56$)	percent of total (%)
About the research		
Found the research interesting	7	13.0
Good area for research	6	11.0
Increased understanding	8	14.0
Concerned with parenting skills	10	19.0
About the items or scale		
Dislike question format	15	27.0
Dislike answer format	14	25.0
Answer is contingent	12	22.0

Table 6

Selection of Responses to the Participant Exit Questionnaire

Category	Response
About the research	<p>"I am interested in the results to see how I, as a parent, am to handle sadness, fear, and anger in my children's lives. I want to know if what I'm doing is effective or if there is a better way of dealing with these emotions."</p> <p>"I'm trying to learn about my own anger problems. So that I can help my son (who is 4) with his anger. I'm afraid my angry feelings are a reflection in my son. I hope it is not too late to help him change his own anger patterns."</p> <p>"I found it thought provoking and interesting!"</p> <p>"I was pleased to participate in this research. I found the questions very interesting and they made me look at, be more aware of, my thoughts and beliefs about parenting."</p> <p>"I think it is important to explore the emotions in children and the parental responses. More education for parents would likely help all parents cope with the challenges of parenting."</p> <p>"Anger and sadness are an important point of being a parent to understand. It is great you are researching this topic."</p>
About the items or scale	<p>"Difficult to answer some items with a simple true or false."</p> <p>"Some of the questions were very difficult to answer on an all or none scale. A category of sometimes would have been helpful, or questions excluding words such as always or never. Are any of us that consistent?"</p> <p>"Some items were ambiguous and answers could be interpreted two ways. This is disturbing as a participant that wishes his / her answers to be interpreted correctly."</p> <p>"I don't like T or F. The answers are limited to only one or the other. I would have preferred a scale. Then I could have a middle answer or an answer that I would tend to but not all the time."</p>

(table continues)

Table 6 (continued)

Selection of Responses to the Participant Exit Questionnaire

Category	Response
About the items or scale	<p>“So many questions that are too general. There are many cases where the answer would vary with the situation.”</p> <p>“With some of the questions, I wasn’t sure how to answer it, because of the way it was worded.”</p> <p>“I found the possibility of only giving a true or false answer too restricting. Furthermore, those answers lead to generalization since parental responses to child behaviour often depends on all kinds of circumstances. i.e. an ‘angry child’ could really only be tired, hungry, overwhelmed, etc.”</p> <p>“I think my responses may be somewhat affected by my mood at the time I was filling out the questionnaire.”</p>

‘double-barrelled’, while other items were criticized for being too absolute or encompassing. Congruent with this view, 22% of the respondents suggested that it was difficult to answer some items as their answer would depend on the situation, the particular child, or on the parent’s mood at the time of the incident. In addition, 25% of the respondents criticized the true or false response format as too restricting. These respondents indicated that they would prefer to respond to the items on a scale, rather than use the true or false format.

Findings not Considered in Planned Analyses

A finding not considered in the hypotheses was that the predominant parenting style for 91 of the 100 participants in the first administration of the PSST was Emotion Coaching. The predominant parenting style for the remaining 9 participants was Laissez Faire. Thus, there were no participants for whom the predominant parenting style was Disapproving or Dismissing. The means and standard deviations for the responses to each parenting style scale are provided in Table 7. As Table 7 shows, the Emotion Coaching and Laissez-Faire items were widely endorsed on the two administrations of the PSST. The Dismissing items were endorsed on average 38% and 39% for the two administrations respectively. However, the Disapproving items were endorsed, on average, the least of all parenting styles.

Although it was not anticipated that there would be scale items with zero variance, the predominant parenting style was re-computed, minus the four items with zero variance, following the discovery that some items did not discriminate between

Table 7

Means and Standard Deviations of Parenting Style Scales

	First		Second	
	Administration		Administration	
	<u>N</u> = 100		<u>N</u> = 80	
	Mean	Standard Deviation	Mean	Standard Deviation
Disapproving	.19	.15	.20	.18
Dismissing	.38	.15	.39	.18
Emotion Coaching	.84	.12	.88	.10
Laissez-Faire	.61	.13	.62	.15

predominant parenting styles. When the four items with zero variance were deleted, there were three cases for which the predominant parenting style changed. In two cases the predominant parenting style changed from Laissez Faire to Emotion Coaching. But in one case the predominant parenting style changed from Laissez Faire to Disapproving. Thus, it appears that the scales are sensitive to the deletion of one or two items.

Finally, the predominant parenting style is intended to be the style for which the participant has the highest score. It was expected that the predominant parenting style would be clearly demonstrated. However, if the parenting style scores from the first administration of the PSST are examined closely, it is found that twenty of the participants have more than one scale score within 10% of another scale score.

Summary of Results

The internal consistency of the PSST ranges from poor to good depending on the parenting style scale evaluated and on which administration of the PSST is considered. Overall, the internal consistency within the scales is at best moderate. Surprisingly, there were a total of six items which had zero variance and did not discriminate between parenting styles. When the inter-item correlations between items belonging to different scales was considered, it was found that there were two pairs of items with correlations greater than $r_s = 0.50$.

The test-retest reliability of the PSST was found to be reasonably good, with the greatest stability in responses to the Dismissing and Disapproving parenting scales. The lowest correlation was between the responses to the Emotion Coaching items, but was still significantly correlated. However, respondents did have a greater tendency to endorse the

Emotion Coaching items during the second administration of the PSST. Despite this tendency, the predominate parenting style changed, from the first to the second administration, for only 8.8% ($n = 7$) of the participants.

The construct validity of the PSST, as evaluated with a confirmatory factor analysis, was poor to marginal depending on the fit indices considered. If an index of absolute fit is considered, then the fit is marginal. However, if indices of comparative fit are considered, then the fit is poor.

When asked to relate thoughts and feelings about participating in the current study and about the PSST, the participants provided considered and thoughtful comments and suggestions. In general, the participants thought that the current study was interesting, informative, and thought-provoking. Some participants were concerned with the quality of their parenting of emotions skills. With respect to the PSST itself, participants indicated that some items were problematic, either in the way the items were worded or in the difficulty associated with answering items using the true or false format.

The predominant parenting style for the large majority of participants was Emotion Coaching and no participants were identified as utilizing the Disapproving or Dismissing parenting styles. However, when the items that had zero variance were deleted, the predominate parenting style for one participant was the Disapproving parenting style. Although the predominate parenting style is intended to be the style with the absolute highest score, twenty participants had more than one parenting style score within 10% of another parenting style score.

CHAPTER IV

DISCUSSION

Overall, the results of this study provide preliminary partial support for reliability and marginal support for validity in this sample. The following discussion will first address issues raised by the findings of the current study. Next, the limitations of the current study will be addressed. Finally, suggestions will be made for future research, which would likely assist in improvement of the PSST's psychometric properties.

Preliminary Analyses

The preliminary analyses established that a socially desirable response tendency was correlated with responses to the Disapproving and Emotion Coaching parenting scales for the second administration of the PSST. The items that were intended to measure social desirability of responding were taken from the Marlowe-Crowne Social Desirability Scale (Reynolds, 1982). One of the criteria on which the items were selected for inclusion was that the item have emotional content, on the understanding that the items would better meld with the PSST items. As the PSST and the social desirability items are both comprised of statements about emotions, it is possible that items intended to measure a social desirability response set may have also measured some aspect of the participant's meta-emotion philosophy.

The parent with a Disapproving parenting style believes that emotional expression should be minimized and responds to expressions of emotion with judgement or criticism (Gottman, 1997). Parents with the Disapproving parenting style would tend to disagree

with statements that were included on the PSST to assess a socially desirable response tendency such as “I have never intensely disliked someone”, “I sometimes feel resentful when I don’t get my own way”, or “I am sometimes irritated by people who ask favours of me”. Disagreeing with the aforementioned statements would be interpreted as responding in a socially desirable manner. Parents with the Emotion Coaching parenting style are aware of and value emotion, yet recognize that there are appropriate ways to handle negative feelings (Gottman, 1997). Thus, parents with the Emotion Coaching parenting style would tend to agree with statements that were included on the PSST to assess a socially desirable response tendency such as “I am always courteous, even to people who are disagreeable”, “I have never been irked when people expressed ideas very different from my own”, or “I have never deliberately said something that hurt someone’s feelings”. Agreeing with the aforementioned statements would be interpreted as responding in a socially desirable manner. Thus, for both the Disapproving and Emotion Coaching parenting styles, the items included with the PSST that were intended to measure a socially desirable response tendency may have in fact been measuring an aspect of the participant’s meta-emotion philosophy.

Hypothesis 1: Internal Consistency

Of the four parenting style scales evaluated for internal consistency, it is encouraging that three of the four scales have reasonably strong internal consistency. It is possible that the current study actually failed to find excellent inter-item consistency due to the inclusion of items that discriminate poorly between parenting styles. Consider the following example. Although statistically significant, the Laissez-Faire parenting scale had

both the lowest internal consistency of the four scales evaluated, and the fewest number of items that comprised the scale. In addition, one item from the Laissez-Faire parenting style scale (“I’m not really trying to teach my child anything in particular about anger”) was significantly correlated with one item from the Dismissing parenting style scale (“I’m not really trying to teach my child anything in particular about sadness”). According to Gottman (1997), the Dismissing parent tends to trivialize or discount the child’s expression of emotion, whereas the Laissez-Faire parent tends to be permissive in terms of emotional expression. Based on Gottman’s description, it appears that both statements should be included in the Laissez-Faire parenting style scale. Including both statements on the Laissez-Faire scale may improve the internal consistency of that scale.

The other two significantly correlated items from different scales were from the Disapproving parenting style scale (“I don’t think it is right for a child to show anger”) and from the Dismissing parenting style scale (“If you ignore a child’s sadness it tends to go away”). Both the Dismissing and Disapproving parenting styles, as described by Gottman, incorporate the notion that emotional expression should be minimized. They differ in that the Dismissing parent discounts the expression of emotion but the Disapproving parent tends to judge or criticize emotional expression. These items appear to accurately reflect the parenting style the items are intended to describe. However, perhaps the two items are significantly correlated because they are tapping into a construct that underlies both parenting styles.

Unexpectedly, four items out of 81 from the PSST had zero variance on the first administration, and six items out of 81 had zero variance on the second administration.

Deletion of these items, and re-computation of the predominant parenting style, resulted in the predominant parenting style changing for three participants. This finding suggests that the PSST is sensitive to the deletion of a few items. In addition, the fact that all or none of the participants from the current study endorsed these items does not suggest that these items would have zero variance with all samples. Perhaps these items discriminate the yet to be identified parents that utilize the Dismissing or Disapproving parenting styles. Thus, it is not recommended that the items with zero variance necessarily be deleted from the PSST.

Hypothesis 2: Test-Retest Reliability

The evaluation of the temporal stability of the PSST provided evidence that participants had a greater tendency to endorse the Emotion Coaching scale items during the second administration of the PSST than during the first administration. Perhaps the greater tendency to endorse the Emotion Coaching items was due to an increased sensitivity to the content of the questionnaire. Prior to the first administration of the PSST, the participants did not have prior knowledge of the content of the questionnaire. Indeed, a vast majority did not know more than an hour in advance that they would be filling out the questionnaire. However, for the second administration, the participants indicated immediately after filling out the first questionnaire whether they would be interested in participating in the second part of the study. Thus, the participants had between 60 and 90 days to reflect on the content of the PSST. This finding is consistent with the responses to the Parent Exit Questionnaire in which 14% of the respondents indicated that this particular study increased their thinking about, or understanding of, the

emotional connection between parents and children. In addition, the level of parental education has been found to be related to the meta-emotion variables (Gottman et al., 1997). As well, the existence of a parent training intervention suggests that parents' Emotion Coaching behaviours may be increased (Gottman et al., 1996). Thus, the literature does not suggest that the meta-emotion philosophy should be temporally stable, but rather that the meta-emotion philosophy should be temporally stable unless there is an intervening variable, such as an increase in parental education or a parent training intervention. Given that this study did not attempt to control for an increase in parental knowledge about parenting of emotion socialization, it is possible that a small percentage of parents increased their knowledge about this topic at some time between the two administrations. Moreover, the predominant parenting style changed for fewer than 10% of the participants. As the large majority of participants were initially identified as utilizing the Emotion Coaching parenting style and participants demonstrated a greater tendency to endorse the Emotion Coaching items over time, suggests that the PSST is temporally stable with respect to the predominant parenting style, but that parents may improve their emotion coaching skills.

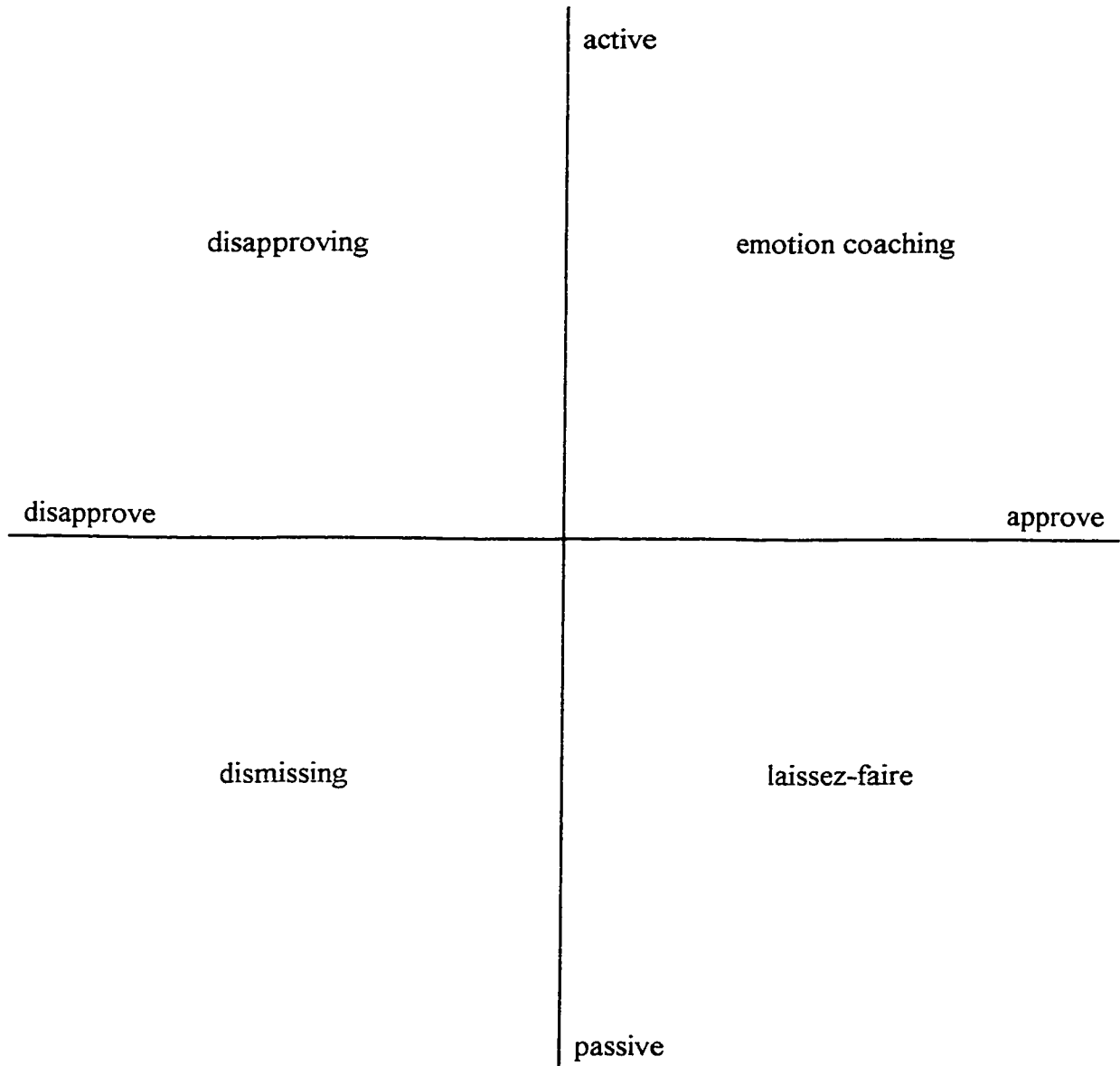
Hypothesis 3: Construct Validity

The finding of limited construct validity of the PSST is congruent with the finding of poor inter-item consistency of the Laissez-Faire parenting style scale. The failure to find a good fit between the observed data and the model may be due to limitations in the model. The model assumes that the four parenting styles are independent constructs. It is possible that four factors do not succinctly describe the differences between parents in

terms of how parents interact emotionally with their children. In other words, the factor structure may be better represented by two or three factors instead of four factors. Gottman and his colleagues (1997) indicated that meta-emotion consists of three dimensions; awareness of own emotion, awareness of child's emotion, coaching the child's emotion. Yet, further on in the same text, the authors provide examples of parents' statements that differentiate between parents that are high or low in awareness of emotion, and high or low in emotion coaching. In addition, responses from the structured meta-emotion interview were categorized into two global variables; awareness of emotion, emotion coaching. In an earlier publication, Gottman and his colleagues identified only three types of parenting styles, dismissing or disapproving, emotion coaching, and permissive (Gottman et al., 1996). Thus, the dismissing and disapproving parenting styles comprised one parenting style. Furthermore, another researcher found evidence for just two unspecified parenting dimensions that were consistent with the dismissing and emotion-coaching parenting styles (Eisenberg & Fabes, unpublished data, as cited in Eisenberg, 1996).

Given Gottman's (1997) description of the four parenting styles, it is possible that the four parenting styles actually reflect two underlying dimensions (see Figure 1). The parenting styles appear to be determined by whether parents approve or disapprove of expressions of emotion, and by how actively parents respond to expressions of emotion (Gottman, 1997). For example, the parent who utilizes the Disapproving or Dismissing styles would disapprove of displays of emotion, whereas the parent who utilizes the Emotion Coaching or Laissez Faire styles would approve of expressions of emotion. In

Figure 1

Suggested Parenting Dimensions

contrast, the parent who utilizes the Disapproving or Emotion Coaching styles would actively respond to expressions of emotion, although in very different ways. Whereas the parent who utilizes the Dismissing or Laissez Faire styles would tend to ignore or permit expressions of emotion without actively interceding. If the parenting styles do represent two underlying dimensions, then an exploratory factor analysis should reflect two factors.

Qualitative Analysis

Responses to the Parent Exit Questionnaire demonstrate the value of the current research, given that 19% of the respondents indicated that they are concerned with the quality of their parenting of emotion skills. In addition, the number of respondents who are interested in the research or the outcome of this current study (13%), and the number of respondents who thought this study was educational or informative (11%), suggests that this research is of interest to parents as well as academicians. These findings also indicate that a parent training intervention would be welcomed by a number of parents (Gottman et al., 1996).

With respect to the comments referring to the particular items, 22% of the parents indicated that their responses were constrained by the format of the questions. In particular, more than one respondent commented that the response may change based on which child that the respondent was thinking of at the time the respondent was answering the question. With the structured interview, participants had just one child within the target age range (Gottman et al., 1997). It may have been easier for some parents to complete the questionnaire with one child as the focus of their responses. With respect to the comments that referred to the response format of the questionnaire, 25% of the

respondents criticized the response format and indicated that a Likert-type response format was preferable to the true / false response format.

Findings not Considered in Planned Analyses

The most interesting finding not considered in the planned hypotheses was the overwhelming number of parents utilizing the Emotion Coaching parenting style. This finding was unexpected given that the number of parents utilizing each parenting style is not provided in the meta-emotion literature (Gottman et al., 1996; Gottman, 1997; Gottman et al., 1997). However, one study that compared responses to the meta-emotion structured interview of parents of developmentally delayed children to parents of non-delayed children, found that four out of 20 parents of developmentally delayed children said that the child had never experienced or did not understand anger or sadness, whereas none of the parents of the non-delayed children said this (Katz et al., 1999). Based on Gottman's (1997) descriptions of the four parenting styles, these parents appear to represent either the Dismissing or Disapproving parenting style. These findings taken together suggest that the majority of parents of delayed or non-delayed children utilize a parenting style consistent with Emotion Coaching.

The second issue of interest is that twenty participants had more than one parenting score within 10% of another parenting style score. This finding would not be expected if the four parenting styles were independent constructs. Again, the meta-emotion literature does not address whether parents may utilize more than one parenting style (Gottman et al., 1996; Gottman, 1997; Gottman et al., 1997). However, as was discussed with respect to the construct validity of the PSST, the PSST may actually

represent two dimensions, with the four parenting styles representing a high or low score on each of the two dimensions. Gottman (1997) does indicate that there are some similarities between the Dismissing and Disapproving parenting styles, and between the Laissez-Faire and Emotion Coaching parenting styles. If this is the case, then it would explain how a parent could have a score of .60 on one parenting style scale and a score of .61 on another parenting style scale. If the four parenting styles are conceptualized as representing two underlying dimensions, then it would be possible for a parent to utilize more than one parenting style. Consequently, one would find one or more scores on the PSST that were quite close, as was found in the current study.

Limitations of the Current Study

The current study was limited by a number of considerations. First, the sample may not be representative of the larger population. The majority of the current sample attended a drop-in centre for parents. As the drop-in centre is intended as a place for parents to meet and discuss parenting concerns and issues, it is possible that the participants recruited from the drop-in centre are more concerned with parenting issues than the population at large. Additional participants were recruited from undergraduate psychology classes, and from parents who attended a parent-child activity day. Both samples of parents may be more interested than the average parents in learning about and improving their parenting skills. Consequently, the sample may not have been a representative sample. Given that the level of parental education has been found to be related to the meta-emotion variables, this may also explain why no parents were identified as representing the Dismissing or Disapproving parenting styles (Gottman et al., 1997).

Another limitation of the sample is the sample size. The sample size is an issue for two reasons. First, the sample size may have been too small to include a representative sample of the population of interest. If there are a small percentage of parents that utilize a non-emotion coaching parenting style, then the sample size may have been too small to be inclusive of parents representing all parenting styles. A second difficulty with the small sample size is the reduced power of statistical analyses, specifically the confirmatory factor analysis. Although Loehlin (1992) recommends a sample size of at least 100 cases for a confirmatory factor analysis, with four factors and at least three indicators per factor, he does indicate that a sample size of 200 is better. Thus, part of the reason that the construct validity is poor may be due to the small sample size.

Another potential limitation of the current study is the failure to address the issue of parents having more than one child within the target age range. As one particular child was referred to in the structured meta-emotion interview, the current study may have inadvertently caused confusion among the participants by failing to ask them to focus on just one child in the target age range (Gottman et al., 1997). Finally, as was discussed previously, the use of emotionally laden items to determine socially desirable response tendencies may not have been a wise choice.

Suggestions for Future Research

There are many potential avenues for future research to take. The first would be to address the limitations in the current study by administering the PSST to a different, larger, more diverse sample. For example, it may be of value to administer the PSST to a clinical sample to determine whether the percentage of non-emotion coaching parents is

higher than in the current non-clinical sample. In addition, a larger sample may be more representative of the population of interest, and would increase the statistical power of the confirmatory factor analysis.

Secondly, the concerns and criticisms raised by the participants in this study may be addressed by changing the response format from a true or false format to a Likert-type response format. It is unknown whether this would lessen the number of participants with two or more predominant parenting styles that are within 10% of each other. In order to address the question of how many constructs or dimensions the PSST represents, an exploratory factor analysis should be undertaken. In addition, the validity of the PSST may be further elucidated by comparing the predominant parenting style as determined by the PSST with the predominant parenting style as determined by the structured meta-emotion interview. Finally, the PSST is limited by including items that refer to just two emotions; anger and sadness. Perhaps including items that refer to other emotions may help to elucidate parents' predominant parenting style.

Concluding Remarks

In conclusion, although the current study is limited by certain considerations, there is some evidence for the reliability and limited validity of the PSST. If reliability and validity are a matter of degree then, based on the results of this study, the PSST may be said to be moderately valid and reasonably reliable, but further refinement would likely add to improving the PSST's psychometric properties. Although it cannot be stated at this time that the PSST is both reliable and valid, it can be stated that parenting of emotion socialization is an important area for future research, with much yet to be done.

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APPENDIX ABackground Information Form

1. Your age: _____
2. Your sex: Male_____ Female_____
3. What is your marital status?_____ Married or living with partner
 _____ Separated / divorced
 _____ Widowed
 _____ Never married
4. What is your race or ethnic background?
 _____ Caucasian
 _____ Black
 _____ Hispanic
 _____ Aboriginal
 _____ Asian / Pacific
 _____ Other (please specify)
5. What is the highest grade (or level of education) that you completed?
 _____ Less than 8th grade
 _____ 8th grade to 11th grade
 _____ High school / GED
 _____ Post high school - trade or technical school
 _____ One to three years of college or university
 _____ College or university graduate
 _____ Graduate and / or professional school
 _____ Other (please specify)
6. Are you currently employed? _____ yes _____ no
7. What is / was your occupation and job title? _____
-

14. Have you attended any parenting classes or read any parenting books?

___ yes ___ no

15. Please list any parenting classes you have attended and the approximate date(s) of your attendance :

16. Please list any parenting books you have read and the approximate date(s) you read the books:

APPENDIX B

Participant Exit Questionnaire

We are interested in your thoughts and feelings about the questionnaires that you completed today. Please use the space provided to tell us what you think or feel about participating in this research and the questions you answered.

If you wish to receive a copy of the study results, please print your name and address in the spaces provided.

Name

Address

APPENDIX C
Consent Form For Participation in Research

RESEARCHER: Catharine Lee, Hons. B.A. 977-5449
 SUPERVISOR: Julie Hakim-Larson, Ph.D. 253-4232 ext. 2241
 Department of Psychology
 University of Windsor

PURPOSE: The purpose of the present study is to evaluate parents' attitudes towards emotions in themselves and in their children.

PROCEDURE: This study consists of two parts. You will be asked to complete two questionnaires today, and three questionnaires in two to three months time. These questionnaires ask for some basic demographic information, as well as for your opinions related to your attitudes about your own and your child's emotions. It is possible that some of the questions may make some individuals uncomfortable. Although it is preferable to answer all the questions, you do not have to answer questions that you do not want to. Participation is completely voluntary and you may withdraw from the study at any time. As a participant, you are free to ask questions prior to, during, or after the study. The entire procedure will take about 30 minutes today, and 45 minutes in two to three months time.

CONFIDENTIALITY: All of your responses will remain confidential. Names will not be recorded on the questionnaires; participants will be assigned numbers which cannot be traced to their names.

FEEDBACK: Following your participation in the study, you will receive a copy of your answers regarding your attitudes about your own and your child's emotions, an information sheet describing your responses, and the opportunity to learn more about current research on this topic.

Once the study is completed, you may receive a copy of the study results if you wish. Please print your name and mailing address on the back of this page if you wish to receive a copy of the results.

This study has been reviewed by the Psychology Department Ethics Committee. Any ethical concerns may be addressed to Dr. S. Voelker, Chair, Ethics Committee (253-4232 ext 2249). Any further questions or concerns can be directed to the principal investigator, C. Lee, or her supervisor, J. Hakim-Larson.

To indicate that you have understood and received a copy of this agreement, that you have had opportunity to ask questions, and that you voluntarily consent to participate, please sign and date the bottom of this form.

Participant's Name (Please Print)

Date

Participant's Signature

9. Is your spouse currently employed? _____ yes _____ no

10. What is / was your spouse's occupation and job title? _____

11. (Optional) Which category best describes your total combined household income last year (from all adult sources living in your household)?

_____	Less than \$20,000
_____	\$20,000 to \$40,000
_____	\$40,001 to \$60,000
_____	\$60,001 to \$99,999
_____	\$100,000 or more

12. How many children do you have? _____

13. For each child, please specify their age, sex, and relationship to you:

Age:

Sex: _____

Relationship: (mark an X in the appropriate column for each child)

Biological parent _____

Adoptive parent _____

Step-parent _____

Foster parent _____

Legal Guardian _____

Other (please specify) _____

14. Have you attended any parenting classes or read any parenting books? ____yes ____ no

15. Please list any parenting classes you have attended and the approximate date(s) of your attendance :

16. Please list any parenting books you have read and the approximate date(s) you read the books:

APPENDIX E

Information for Parent Participants

The Parenting Styles Self-Test

The purpose of this study is to evaluate your attitudes about emotions in yourself and your children. In order to evaluate your attitude about emotions, you completed the Parenting Styles Self-Test which was created by John Gottman for use in conjunction with his recently published parenting guide. Gottman's research indicates that parents primarily use one of four parenting styles when responding to emotions in their children, and the questionnaire is intended to help parents to determine the parenting style that they are likely to use most often. However, the questionnaire has not yet been researched thoroughly, so we are not sure how valid it is. Although the questionnaire is meant to be used in conjunction with the parenting guide, we are assessing the validity of the questionnaire in order to find out if it will be useful for future research.

You are invited to score your own questionnaire, and then to read about the different parenting styles.

How to score the Parenting Styles Self-Test

For each parenting style, sum the number of 'true' responses and divide by the total number of statements for that parenting style.

Dismissing Style: 1,2,6,7,9,12,13,14,15,17,18,19,24,25,28,33,43,62,66,67,68,76,77,78,80
Total the 'true' responses to these statements and divide the total by 25.

Disapproving Style: 3,4,5,8,10,11,20,21,22,41,42,54,55,56,57,58,59,60,61,63,65,69,70
Total the 'true' responses to these statements and divide the total by 23.

Laissez-Faire Style: 26,44,45,46,47,48,49,50,52,53
Total the 'true' responses to these statements and divide the total by 10.

Emotion-Coaching Style:
16,23,27,29,30,31,32,34,35,36,37,38,39,40,51,64,71,72,73,74,75,79,81
Total the 'true' responses to these statements and divide the total by 23.

The parenting style with the highest percentage of 'true' responses represents the parenting style that you use most often when responding to emotions in your children.

What the parenting styles mean

Dismissing Style: The parent with the dismissing style of parenting emotions tends to trivialize or discount their children's expressions of emotion. These parents may tend to be indifferent to the expression of emotion in their children.

Disapproving Style; The parent with the disapproving style of parenting emotions tends to judge and criticize their children's expression of emotion.

Laissez-Faire Style; The parent with the laissez-faire style of parenting emotions tends to permit or encourage expressions of emotion in their children. In addition, these parents tend not to offer guidance to their children in terms of how the child can learn to better handle their emotions.

Emotion-Coaching Style; The parent with the emotion-coaching style of parenting tends to permit or encourage expressions of emotion in their children. In addition, these parents tend to assist their child to learn how to handle their feelings, and teach their child how to problem solve with respect to their child's emotional states.

For further information

In order to fully understand the parenting styles, it is recommended that you read John Gottman's parenting guide. The parenting guide will help you learn how to adapt your predominant parenting style in order to foster your child's emotional development. Two copies of *The Heart of Parenting: Raising an emotionally intelligent child* are available at the Early Childhood Education Drop-In Centre for you to peruse. Alternatively, if you would like to order yourself a copy of the book from a bookstore, here is the information you will need;

Gottman, J.M. (with DeClaire, J.) (1997). The heart of parenting: Raising an emotionally intelligent child. New York, N.Y.: Simon & Schuster.

VITA AUCTORIS

After over twelve years experience developing skills and achieving retail management status, Catharine Lee resolved to attain a university education. Catharine graduated with a B.A. (Hons.) from McMaster University in 1997. Currently she is enrolled in the Ph.D. program in clinical psychology at the University of Windsor.